BEFORE THE BOARD OF OIL, GAS AND MINING
DEPARTMENT OF NATURAL RESOURCES
STATE OF UTAH

UTAH CHAPTER OF THE SIERRA CLUB, SOUTHERN UTAH WILDERNESS ALLIANCE, NATURAL RESOURCES DEFENSE COUNCIL, and NATIONAL PARKS CONSERVATION ASSOCIATION, Petitioners, DIVISION OF OIL, GAS AND MINING, Respondent, ALTON COAL DEVELOPMENT, LLC and KANE COUNTY, UTAH Intervenors,	INTERIM ORDER CONCERNING DISPOSITION OF CLAIMS Docket No. 2009-019 Cause No. C/025/0005 FILED AUG 0 3 2010 SECRETARY, BOARD OF OIL, GAS & MINING

The Board, consistent with past practice in prior coal permit appeal matters, and consistent with the parties' waiver of the 30-day deadline established in Utah Code Ann. §40-10-14(3) for the Board's issuance of its final order, issues this Interim Order announcing the decision it has reached on each of the claims submitted by Petitioners. As more fully discussed below, a majority of the Board finds that Petitioners have not met their burden of proof and have consequently not prevailed on any of their stated claims. A minority opinion pertaining to Claim Nos. 12 and 13 is set forth at the end of this Interim Order.

The identification of Petitioners' claims in the discussion that follows is taken directly from Petitioners' final formulation of claims as set forth in its Petitioners' Notice of Issues to be Heard, filed on April 19, 2010.

1. Whether the Division's determination of eligibility and effect related to cultural and historic resources covered the entire permit area approved for the Coal Hollow Mine.

Decision: Claims 1 through 4 all pertain to alleged failures of the Division to discharge its duties under both the coal rules and Utah Code Ann. §9-8-404 to take into account how coal mining and reclamation operations may affect cultural and historic resources. Claim No. 1 asserts that the Division of Oil, Gas and Mining's ("Division's") cultural resource review did not cover the entire permit area. Although not a focus of the original Request for Agency Action, the completeness of the Division's review within the permit area became the subject of greater attention when in April of this year a cultural resource survey covering part of the permit area, which had inadvertently not been submitted to the Division earlier, was submitted by Respondent Alton Coal Development, LLC ("ACD"). This survey revealed to the Division the existence of two additional sites within the permit area that had not been previously known to the Division or addressed in communications from the Division to the State Historic Preservation Office (SHPO).

The evidence shows that upon learning of the two previously undisclosed sites, the Division notified SHPO of the sites, requested SHPO's concurrence in the Division's determination with respect to the sites, and received SHPO's concurrence on April 26, 2010. The Division advised ACD that an additional condition was being placed upon the permit requiring avoidance or mitigation of the sites prior to mining. The regulations allow for such permit conditions to be used as a way to satisfy the obligation to protect historic sites, *see* Utah Admin. Code R645-300-133.600, and allow for mitigation subsequent to the issuance of the

permit "provided the required measures are completed before the properties are affected by any mining operation." *See* Utah Admin Code R645-301-411.144.

Given that the Division remedied the previous omission of the two sites by notifying SHPO and obtaining its concurrence, and given that the Division appropriately imposed a new condition on the permit requiring mitigation pursuant to R645-301-411.144, the Board with respect to this issue upholds the Division's approval of the permit as conditioned by the requirement to avoid or mitigate the newly-identified sites.

2. Whether the Division's determination of eligibility and effect related to cultural and historic resources covered any area outside the permit area approved for the Coal Hollow Mine.

Decision: See discussion of Claim No. 3, below.

3. Whether the Division considered a mitigation plan for any cultural or historic resources located wholly outside the permit area.

Decision: While Claim Nos. 2 and 3 as set forth above were listed separately in Petitioners' April 19, 2010 Notice of Issues to Be Heard, Petitioners in their final brief on historic/cultural resources issues elected to collapse these two claims into a single discussion of whether the "Division's determination of eligibility and effect failed to include any adjacent area." Petitioners' Post-Hearing Brief Addressing Air Quality and Cultural/Historic Issues at 13-16. This reformulated statement of the claims (which represents the only claim arising out of Claim Nos. 2 and 3 actually submitted to the Board in the end) is discussed in the present section of the Board's Interim Order. To the extent Claim Nos. 2 and 3 as originally formulated pose different questions (as to sites located partially vs. wholly outside the permit area), they are both addressed in this section.

The rules applicable to cultural resources inside the permit area also apply to resources located in the "adjacent area." *See* Utah Admin. Code R645-301-411.140 and 411.141.1. The "adjacent area" is defined as "the area outside the permit area where a resource or resources, determined according to the context in which adjacent area is used, are or reasonably could be expected to be adversely impacted by proposed coal mining and reclamation operations." Utah Admin. Code R645-100-200.

The evidence presented at the hearing demonstrates that cultural resource inventories documented over ninety sites within and outside of the permit area. The Division was therefore apprised of sites that had been identified and their location relative to the permit boundary. From among these inventoried sites, the Division concluded that a subset were located either within the permit area or within the "adjacent area" as that term is defined in the regulations (i.e. could reasonably be expected to be adversely impacted by coal mining and reclamation operations). The Division's witness explained at the hearing that the Division determined that cultural sites were unlikely to be affected via any other means than surface disturbance. Because any area in which surface disturbances will occur must be included within the permit area itself, the sites identified by the Division as ones which "reasonably could be expected to be adversely impacted" included only sites located within, or partially within and partially outside of, the permit area. Some of these sites extend nearly 1,000 feet beyond the permit boundary. The Division's witness explained that the Division concluded that inventoried sites located *wholly* outside of the permit area (i.e. sites located outside the permit area which did not overlap the permit boundary to any degree) could not reasonably be expected to be adversely impacted, and

were therefore outside of the "adjacent area" for cultural resources as that term is defined in the regulations.[1]

The disagreement between the parties on this issue seems to concern how the "adjacent area" analysis should be approached. The Division's analysis discussed in the preceding paragraph ensured that the Division considered the impacts to all sites that could reasonably be expected to be impacted by coal mining and reclamation operations. This is all that the regulations require. Petitioners have a different view of how the "adjacent area" analysis should be carried out, suggesting the Division should have followed some procedure which would have produced a geometric shape or outline on a map which could be labeled the "adjacent area." While such an approach certainly could be followed, the Board sees nothing in the applicable regulations which mandates it. The critical requirement is that all sites that "are or reasonably could be expected to be adversely impacted" be included in the Division's analysis, and the evidence demonstrates that this occurred. Petitioners presented no evidence demonstrating that any cultural or historic resource not included in the Division's analysis and determination can be reasonably expected to be impacted by coal mining and reclamation operations.

Ultimately, the Board can find no fault in the approach followed by the Division based upon the requirements of the rules (including the definition of "adjacent area"). There may be other methods that could have been employed which would have yielded a plottable line or shape on a map, but such methods would not have resulted in the inclusion of any additional sites in the

[1] It should be noted that the regulations draw no distinction between resources located "wholly" outside the permit area and resources which may slightly overlap the permit area but extend hundreds of feet beyond the permit area. Under the regulations, the question in all cases is simply whether the resource at issue is or "reasonably could be expected to be adversely affected" by coal mining and reclamation operations. The evidence shows that the Division analyzed this question with respect to the inventoried sites.

Division's determination of eligibility and effect, would not ultimately have affected the analysis of this issue, and are not mandated by the applicable rules.

4. Whether the Division was required to identify and address the effect of the proposed Coal Hollow Mine on the Panguitch National Historic District before approving the mine permit.

Decision: For the reasons discussed in the Board's February 18, 2010 Order Concerning Motions to Dismiss, the Board concludes that coal transportation truck traffic through Panguitch on US Highway 89 is not a "coal mining and reclamation operation" as that term is defined in the regulations. The Panguitch National Historic District ("PNHD") is therefore not located within the mine's "adjacent area" for cultural and historic resources by virtue of the possibility that it could be impacted by such traffic. This Board in February stopped short of dismissing Claim No. 4 under Rule 12(b)(6) given the liberality of that rule and the Petitioners' having at least alleged that the PNHD was located within the "adjacent area" of the Coal Hollow mine for historic and cultural resources The Board stated at that time that it "struggled to see what evidence Petitioner might offer to demonstrate that the PNHD, some 20-30 miles removed from the permit area, should be considered an 'adjacent area' under the coal regulations." Order Concerning Motions to Dismiss at 9. The evidence adduced at the hearing supports the Division's determination that the PNHD lies outside of the "adjacent area" of the mine. No evidence presented demonstrated that the PNHD reasonably could be expected to be adversely impacted by proposed coal mining and reclamation operations, and the public nature of US Highway 89 has not been challenged. The Board therefore finds that the PNHD, located 20-30 miles from the Coal Hollow Mine, is not located within the mine's "adjacent area" for cultural and historic resources.

Petitioners argue that the state historic preservation statute, codified at Utah Code Ann. §9-8-404 ("Section 404"), dictates that the coal rules be read in such a way as to include the PNHD within the "adjacent area" for cultural and historic resources. Petitioners note that Section 404 contains similar wording to the National Historic Preservation Act ("NHPA") and argue that federal regulations promulgated under the NHPA (codified at 36 C.F.R. Part 800) (the "800 Rules") should be applied. Petitioners argue that the 800 Rules mandate consideration of the "indirect effects" of the mining operations in a way that would encompass effects on the PNHD. The trouble with this argument is that it is clear from cases construing the NHPA and its regulations as well as the regulatory history surrounding amendment of the definition of "undertaking" in the 800 Rules that that the 800 Rules do not apply to state undertakings such as the permitting decision under appeal. *See National Mining Association v. Fowler*, 324 F.3d 752, 759-60 (D.C. Cir. 2003); 69 Fed. Reg. 40544-01, 40546 (July 6, 2004). Utah has not adopted the 800 Rules or promulgated rules under Section 404 which parallel the portions of the 800 Rules relied upon by Petitioners. Instead, the Utah coal rules referenced in the preceding paragraph and discussed in the Board's February 18, 2010 Order Concerning Motions to Dismiss constitute the rules governing how the "adjacent area" for historic and cultural resources for the Coal Hollow Mine is to be determined and analyzed.

As explained above and in the Board's February 18, 2010 order, the PNHD, located along a public highway some 20-30 miles from the mine, does not fall within the mine's "adjacent area" for historic and cultural resources as defined in the coal rules. The Division did not err in failing to apply the inapplicable 800 Rules in its analysis under Section 404 or the Utah coal regulations, and the Board therefore upholds the Division's exclusion of the PNHD from the "adjacent area" for historic and cultural resources.

5. Whether the Division determined that the Fugitive Dust Control Plan for the Coal Hollow Mine met the requirements of the Division's regulations prior to approving the mine permit.

6. Whether the Division of Air Quality provided the Division of Oil, Gas and Mining an evaluation of the effectiveness of the Fugitive Dust Control Plan for the Coal Hollow Mine prior to the Division's approval of the mine permit.

7. Whether the Division of Air Quality has provided notice to the Division of Oil, Gas and Mining of receipt of a complete air permit application from ACD for the Coal Hollow Mine.

8. Whether the Division of Air Quality has provided notice to the Division of Oil, Gas and Mining of approval of an air permit for the Coal Hollow Mine.

9. Whether the Division was required to wait for the Division of Air Quality's evaluation of the Fugitive Dust Control Plan including the plan's effectiveness in addressing the quality of the night skies before approving the Coal Hollow mine permit.

Decision: The Board addresses Claim Nos. 5 through 9 together. Each of these claims challenges the propriety of the actions taken by the Division with respect to the fugitive dust control plan.

The regulations require that the permit application contain a fugitive dust control plan with two elements: (1) a "plan for fugitive dust control practices," and (2) a "monitoring program to provide sufficient data to evaluate the effectiveness of the fugitive dust control practices." Utah Admin Code R645-301-423.100, 423.200. The evidence presented at the hearing establishes that the permit application contains a plan for fugitive dust control practices and that the Division's soil scientist determined such plan to be adequate. No evidence was

presented demonstrating the inadequacy of the fugitive dust control practices. The Board therefore finds the first requirement listed above was met.

With respect to the second requirement referenced above, while the Division found that the permit application contained a monitoring program, it concluded that its staff lacked the necessary expertise to evaluate the effectiveness of the monitoring method chosen (EPA Method 9). The Division therefore requested that the Division of Air Quality ("DAQ") evaluate the use of that method and imposed a condition on the permit precluding mining until the DAQ issued a favorable decision on ACD's air quality permit including the use of EPA Method 9. Petitioners challenge the Division's referral of this evaluation to DAQ, arguing that the regulations demand the Division find that all regulatory requirements are met before permit approval, leaving no room for permit approval conditioned upon any finding being made by DAQ concerning the monitoring plan, even if mining is prohibited until such finding is made.

The Division notes that the coal regulations specifically contemplate coordination with DAQ on air quality issues. *See* Utah Admin Code R645-301-422. The Division also presented evidence of a Memorandum of Understanding between the Division and DAQ providing for coordination between the agencies and presented evidence that Wyoming's coal program has a practice of similarly deferring to Wyoming's air quality agency on questions concerning the sufficiency of monitoring methods. Given the regulations' reference to coordination with DAQ concerning air quality issues, and given DAQ's particular expertise in evaluating monitoring methods, the Board cannot conclude that the means chosen by the Division to assure itself of the effectiveness of the monitoring element of the dust control plan was unreasonable or contrary to the thrust of the coal regulations. The effectiveness of the monitoring plan is assured because the permit is conditioned upon ACD's obtaining DAQ approval of that plan in conjunction with its

air quality permit. No mining can occur until and unless such approval is obtained. Additionally, should Petitioners dispute the efficacy of EPA Method 9 as a monitoring method (no evidence challenging the adequacy of that method was presented to the Board at the hearing)[2], they may contest that component of DAQ's Air Quality Approval Order in a hearing before the Utah Air Quality Board. *See* Utah Admin. Code R307-103-2 and 3.

Petitioners also challenge the Division's not having considered as part of its dust control plan potential impacts of fugitive dust on the clarity of the night sky. The controlling regulations require that dust control practices comply with state and federal air quality standards in general. *See* Utah Admin. Code R645-301-421 and 423.100. The regulations simply make no mention of impacts to night sky clarity as a particular manifestation of fugitive dust that must be separately analyzed by the agency. Petitioners take a logical wrong turn when they argue that separate analysis of night sky clarity must be a requirement of the regulations because the failure to consider that particular potential impact of fugitive dust "ignore[s] the relevance of fugitive dust to visibility." Petitioners' Post-Hearing Brief Addressing Air Quality and Cultural/Historic Issues at 7. It may well be that impact to night sky clarity is one potential manifestation of fugitive dust from mining operations, but one could identify other potential impacts which are likewise never mentioned in the controlling regulations. The regulations demand compliance with state and federal air quality standards, which are in turn established to address the various negative impacts of air pollution. Those standards are the measure of dust plan adequacy set forth in the regulations. Nowhere in the regulations is night sky clarity mentioned and the Board

[2] The only evidence presented at the hearing regarding the efficacy of EPA Method 9 supported its appropriateness as a monitoring method for the subject dust control plan. The June 23, 2010 filing of ACD concerning the fugitive dust control plan issue evidences that DAQ, while it is still completing its review of other portions of ACD's air quality permit, has now approved the use of EPA Method 9 as an appropriate monitoring method for the fugitive dust control plan.

concludes the Division did not err in failing to separately analyze night sky clarity in addition to analyzing compliance with air quality standards generally. [3]

10. Whether the Division's cumulative hydrologic impact assessment for the Coal Hollow mine unlawfully fails to establish at least one material damage criterion for each water quantity or quality characteristic that the Division requires ACD to monitor during the operations and reclamation periods.

Decision: The Division is required to prepare a Cumulative Hydrologic Impact Assessment ("CHIA") to determine the probable impact of mining on the hydrologic balance. Utah Code Ann. §40-10-11(2)(c) and §40-10-10(2)(c)(i)(C). In connection with this effort, the Division is to make a finding as to whether the proposed mine has been designed to prevent material damage to the hydrologic balance outside the permit area. Utah Code Ann. §40-10-11(2)(c). Petitioners argue that in order to adequately assess whether the mine is designed to prevent material damage to the hydrologic balance, the Division was required to adopt material damage criteria with defined numeric limits, or which describe prescribed amounts of change, to better define what would constitute material damage. ACD and the Division counter, and the Board agrees, that no provision of the controlling statute or regulations requires designation of specific numeric values to define material damage criteria in the CHIA for each water quality or quantity parameter that will be monitored by the operator.

The Board heard testimony from the expert witnesses of the parties in this matter concerning the choices made and analysis undertaken by the Division in performing its CHIA.

[3] The Board notes that in any event, Petitioners presented no evidence at the hearing demonstrating that the fugitive dust control plan and practices at issue fail to adequately protect against impacts to night sky clarity. As noted above, the Division presented evidence that its soil scientist reviewed the proposed dust control procedures and found them to be adequate, while the Petitioners presented no evidence demonstrating the inadequacy of those practices for any purpose.

The Board views the witnesses of the Division and ACD to be more credible overall on this subject than the witness of the Petitioners and finds that at most the testimony of Petitioners' expert establishes a mere difference of opinion on an issue involving substantial technical analysis. As noted in the Board's January 12, 2010 Order Concerning Scope and Standard of Review and case law cited therein, the Division is entitled to rely on the expertise of its technical experts. Evidence that demonstrates only a difference of professional and technical opinion between Petitioners' expert and the Division's expert does not demonstrate error on the part of the Division or warrant a reversal or remand. The Board therefore affirms the Division's findings that the CHIA complies with the applicable regulations and that the mine has been designed to prevent material damage to the hydrologic balance.

11. Whether the Division's cumulative hydrologic impact assessment for the Coal Hollow mine unlawfully fails to designate the applicable Utah water quality standard for total dissolved solids (a maximum concentration of 1,200 milligrams per liter) as the material damage criterion for surface water outside the permit area.

Decision: The Board agrees with the Division and ACD that although Utah water quality standards are important and enforceable performance standards for discharges from the proposed project, the controlling statute and regulations do not mandate that these standards be employed as material damage criteria in the CHIA. The Board therefore concludes the Division was not bound to establish the Utah water quality standard of 1,200 milligrams per liter of total dissolved solids as a material damage criteria. Evidence before the Board demonstrated that pre-mining background levels of total dissolved solids in reaches of potentially affected streams already at times exceeded the 1,200 milligrams per liter level and that the Division therefore established a higher level as an indicator parameter. The Board finds that the evidence in the

record supports the Division's setting of its indicator parameter at 3,000 milligrams per liter. The testimony of Petitioners' expert on this question establishes only a difference of professional opinion between that expert and the Division's staff on an issue involving substantial technical analysis and does not justify disturbing the Division's determination.

12. Whether ACD's hydrologic monitoring plans are unlawfully incomplete because they fail to describe how the monitoring data that ACD will collect may be used to determine the impacts of the Coal Hollow mine upon the hydrologic balance.

Decision: The Board's rules require that the operations plan submitted with the permit application package set forth plans for monitoring the quality and quantity of surface and groundwater resources and that it also "describe how [the monitoring] data may be used to determine the impacts of the operation upon the hydrologic balance." Utah Admin. Code R645-301-731.211 (a parallel requirement for surface-water monitoring may be found at R645-301-731.220 to 731.224).

Petitioners contend that the requirement that the plan contain a description of how the data may be used to determine the impacts of mining is not met in this case. The disagreement between the parties on this issue boils down to how explicit, specific and detailed the "description" must be to satisfy the above-quoted rule. Petitioners argue that a relatively higher degree of detail is required, while the Division and ACD argue that a step-by-step, "how-to" description of precisely how the data will be used is unrealistic and goes beyond the requirements of the regulation. The regulations themselves shed no further light on the degree of detail required. Although the plans at issue in this case could have provided a more detailed description of how the monitoring data may be used, based on the language of the regulation alone, a majority of the Board is not persuaded that the rule has been violated.

Petitioners have cited *Save Our Cumberland Mountains v. Office of Surface Mining Reclamation & Enforcement et al.,* No. 97-3-PR (Office of Hearings and Appeals July 30, 1998) (attached to Petitioners' June 23, 2010 post-hearing brief on geology and hydrology issues as Exhibit 1) ("SOCM") which construed a parallel federal regulation. In that case, Administrative Law Judge Schweitzer held that a simple statement in a hydrologic monitoring plan that a "comparison of monitoring data to pre-mining data" would be made "to assist in the determination if any potential impacts have occurred" was too vague and general to meet the requirements of the federal rule. *Id.* at 29. Judge Schweitzer noted the absence of certain information from the plans at issue in finding that those plans inadequately described how the monitoring data may be used. He noted that, "[a]t a minimum, the descriptions should explain . . . what each monitoring site is designed to monitor," and discussed further details he felt should have been included in the plans at issue. *Id.* Even if the Board treats *SOCM* as persuasive authority on this question[4], the Board notes that the monitoring plan and companion documents in this case do contain information Judge Schweitzer noted was lacking in *SOCM.* For example, the monitoring plan at issue indeed does identify "what each monitoring site is designed to monitor," as well as the monitoring protocols to be used at each monitoring site. *See* Hearing Exhibit D-1 at 7-57 through 7-59 and Tables 7-4, 7-5, 7-6 and 7-7. The controlling regulations require the gathered data to be submitted every three months and specify that when an analysis of the data indicates non-compliance with permit conditions, the operator shall promptly notify the Division and immediately take actions required by the regulations and operations plan. *See* Utah Admin. Code R645-301-731.212 and 731.223. The provisions of the monitoring plans and related documents, when read in conjunction with the regulations, therefore address and

[4] *SOCM* construes a parallel rule under the federal scheme rather than the Utah coal rules.

adequately disclose how the monitoring data may be used. *See also* Respondent ACD Coal Development, LLC's Closing Brief on Hydrology and Geology Claims at 16-26 (summarizing other provisions of the monitoring plan and related documents which pertain to how the monitoring data are to be used).

While a greater level of detail might have been possible, a majority of the Board finds that the hydrologic monitoring plans, both on their own, as well as when read in conjunction with other information contained elsewhere within the overall Mining and Reclamation Plan (MRP), adequately describe how the monitoring data gathered may be used to determine the impacts of mining operations on the hydrologic balance. The Board therefore affirms the Division's findings on this issue.

13. Whether ACD's hydrologic operating plan is unlawfully incomplete because it fails to include remedial measures that ACD proposes to take if monitoring data show trends toward one or more material damage criteria.

Decision: Claim No. 13 alleges that ACD's hydrologic monitoring plan fails to include remedial measures to be used if monitoring data indicates a developing problem. The coal regulations state that the hydrologic operating plan will "address any potential adverse hydrologic consequences identified in the PHC determination prepared under R645- 301-728 and will include preventative and remedial measures." Utah Admin. Code R645-301-731. The Division and ACD presented evidence of preventative and remedial measures within the plan and the Board finds in general that such measures have been included as required by the rule.

While Claim No. 13 as stated in Petitioners' April 19, 2010 Notice of Issues to Be Heard alleges a failure of the hydrologic operating plan to identify remedial measures in general[5], the claim as submitted and argued to the Board in Petitioners' post-hearing brief on this issue focuses exclusively upon total dissolved solids ("TDS"). *See* Petitioners' Post-Hearing Brief on Geology and Hydrology Issues at 9-11. While the above-quoted regulation speaks of the inclusion of preventative and remedial measures in general, it does not specify the relative degree to which each type of measure must be included within the plan under differing circumstances. The subject regulation therefore affords the Division a measure of discretion in determining to what degree an applicant must include remedial measures when a particular potential hydrologic consequence has been judged to be improbable due to site conditions and/or the effectiveness of the specified preventative measures. The PHC determination prepared under R645-301-728 in this case identifies rising TDS levels as an unlikely consequence of mining operations, rather than a probable consequence. *See* Hearing Exhibit D-1 at 7-37. Although the probability of rising TDS levels as an adverse hydrologic consequence is low, thereby reducing the need for extensive remedial measures to be identified, the Board finds that the MRP, including its hydrologic operating plan, does identify measures which are both preventative and remedial to address potential increases in TDS.

14. Whether ACD's geologic information is unlawfully incomplete because ACD failed to drill deeply enough to identify the first aquifer below the Smirl coal seam that may be adversely impacted by mining.

Decision: The regulations require that the permit application contain a description of the geology "down to and including the deeper of either the stratum immediately below the

[5] Consequently, the Division and ACD devote significant portions of their post-hearing briefs on this claim to

lowest coal seam to be mined or any aquifer below the lowest coal seam to be mined which may be adversely impacted by mining," and that "samples will be collected and analyzed from test borings; drill cores; or fresh, unweathered, uncontaminated samples from rock outcrops" down to that same level. Utah Admin. Code R645-301-624.100 and 624.200. With respect to these requirements, Petitioners argue in Claim No. 14 not that they can establish that an aquifer is present in the Dakota Formation, but that ACD failed to conduct an inquiry into that question which is sufficient under the rules.

ACD drilled boreholes into the Dakota Formation below the Smirl coal seam. The above-cited rules do not specify how deeply below the coal seam boreholes must be drilled, and some professional and technical judgment, informed by other available geologic and hydrologic information, is required to answer that question. While the boreholes at issue were drilled to a depth of seven feet or less below the coal seam, they provide information concerning the stratum underlying that seam. The rules cited above also provide that "unweathered, uncontaminated samples from rock outcrops" may be examined as an alternative to test borings, and evidence presented at the hearing establishes that ACD's expert examined such outcrops, in addition to other evidence, in investigating and analyzing the stratum below the coal seam and any aquifers below the coal seam which might be affected.

The Board finds that the evidence in the record supports the Division's finding that there is no aquifer below the Smirl coal seam which is likely to be affected by mining operations. No evidence adduced at the hearing establishes the existence of such an aquifer.[6] The best means of carrying out the inquiry concerning potential aquifers below the coal seam involves substantial

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discussions of remedial measures pertaining to non-TDS related issues as well as TDS-related issues.

professional and technical judgment. The Board finds that the testimony of Petitioners' expert on this question establishes a mere difference of opinion with the experts of the Division and ACD as to what that inquiry requires. This difference of opinion is not enough to disturb the Division's determination on this issue. The Board therefore affirms the Division's actions with respect to this claim.

15. Whether ACD's hydrologic monitoring plans are unlawfully incomplete because they fail to establish monitoring stations:

(a) for surface water on Lower Robinson Creek immediately upgradient of the permit area;

(b) for both surface and alluvial ground water in or adjacent to Lower Robinson Creek, immediately downgradient of the most downgradient discharge point from the seeps or springs that ACD and the Division have observed between monitoring points SW-101 and SW-5.

Decision: Petitioners contend that the monitoring stations established on Lower Robinson Creek are located too far away from the permit boundaries to accurately characterize the condition of the water of that stream as it enters and then leaves the permit area. Without this information, Petitioners argue, it will not be possible to ascertain the effect of the mine on Lower Robinson Creek or ensure that material damage to the hydrologic balance will not occur.

The regulations require that surface and groundwater monitoring plans identify the locations of monitoring sites, but do not specify criteria for choosing the precise location of those sites or require that such sites be located immediately adjacent to the permit boundary. *See* Utah

[6] As noted above, Petitioner clarifies that its claim on this issue is not that it possesses evidence to demonstrate the existence of such an aquifer, but rather that ACD and the Division did not do enough to confirm the absence of such an aquifer.

Admin. Code R645-301-731.211 and 731.222. At the hearing, the expert witness for ACD opined that the sites chosen allowed the monitoring stations at issue to perform their function under the regulations and the evidence shows that the Division in the exercise of its technical judgment agreed and approved the monitoring locations chosen. The testimony of the Petitioners' expert on this issue evidences a difference of professional and technical opinion with the Division as to the siting of the monitoring stations. The Board found the experts of ACD and the Division to be more credible with respect to this issue, and in any event, a mere difference of opinion on an issue involving substantial technical judgment does not demonstrate error in the Division's approval of the siting of monitoring stations or its finding that the monitoring plan is adequate under the regulations.

16. Whether ACD's baseline hydrologic data are unlawfully incomplete in one or more of the following respects:

(a) the data do not include even one flow rate or water quality entry during the data collection period at monitoring stations that ACD should have established on Lower Robinson Creek immediately upgradient of the permit area, and thus the data do not demonstrate seasonal variation at that location;

(b) the data do not include even one flow rate or water quality entry during the data collection period at a monitoring station that ACD should have established on Lower Robinson Creek immediately downgradient of the most downgradient discharge point from the seeps or springs that ACD and the Division have observed between monitoring points SW-101 and SW-5, and thus the data do not demonstrate seasonal variation at that location; and

(c) none of the water quality data are verified by complete laboratory reports that establish an appropriate chain of custody and identify the sampling protocols that governed collection of each water sample.

Decision: Petitioners elected to abandon and not present any evidence regarding Claim No. 16(c). Claim Nos. 16(a) and 16(b) are closely related to Claim No. 15 in that they address the lack of data gathered at the monitoring points that Petitioners contend ACD should have established as discussed in Claim Nos. 15(a) and 15(b). For this reason, the Board's rejection of Claim No. 15 essentially answers Claim Nos. 16(a) and 16(b). As noted above, there is no requirement under the controlling regulations that monitoring sites be established immediately adjacent to the permit boundary. The evidence establishes that monitoring sites were located at sites upstream of the permit area, within the permit area, and downstream of the permit area and that the sites chosen satisfy the requirements of the regulations. Again, the expert witness for ACD opined that the monitoring site locations chosen allow for the collection of the data required by the rules and the Division in the exercise of its technical judgment agreed. The contrary opinion of Petitioners' expert does not alone support disturbing the Division's findings on this issue.

17. Whether the Division's determination that Sink Valley does not contain an alluvial valley floor is arbitrary, capricious, or otherwise inconsistent with applicable law.

Decision: The dispute between the parties on this issue hinges to a large degree upon their construction of several provisions of the regulations pertaining to what does and does not constitute an alluvial valley floor (or "AVF"). The regulations in one provision describe an alluvial valley floor as being present where "unconsolidated streamlaid deposits holding streams" are found and "there is sufficient water to support agricultural activities" as evidenced

by flood irrigation or subirrigation activity or flood irrigation potential. Utah Admin. Code R645-302-321.300 – 321.323 ("Section 321"). The regulations also provide an explicit definition of "alluvial valley floors," stating that the term "means the unconsolidated stream-laid deposits holding streams with water availability sufficient for subirrigation or flood irrigation agricultural activities, but does not include upland areas which are generally overlain by a thin veneer of colluvial deposits composed chiefly of debris from sheet erosion, deposits formed by unconcentrated runoff or slope wash, together with talus, or other mass-movement accumulations, and windblown deposits." Utah Admin. Code R645-100-200 ("Section 200"). The regulatory definition of AVF in Section 200 therefore repeats the general "unconsolidated streamlaid deposits holdings streams" and water availability elements referenced in Section 321, but then sets forth an express exception to that general description.

Petitioners assert that the Section 200 description is more general and that the Section 321 description is more specific, and on that basis urge that Section 321 should control as the more specific provision. As noted above, however, Section 200 repeats the elements of the general Section 321 language for AVFs, and then carves out (with "but does not include" language) a subset of circumstances which are specifically excluded from the AVF definition. The Section 200 language is therefore more specific. Petitioners also reference a need to read the language of Section 321 and Section 200 together, but it is in reading those provisions together that it becomes clear that the specifically excluded circumstances described in Section 200 fall outside the definition of an AVF. Petitioners' reading of these provisions asks the Board to focus only on the language of Section 321 and to give no effect to the express exception clearly laid out in Section 200. The Board cannot conclude the Division erred in looking to the

regulatory definition of an AVF found in Section 200 in making its AVF determination for Sink Valley.

The Board also finds that the weight of the evidence presented at the hearing supports the Division's negative AVF finding under the definitions discussed above. While there was disagreement among the parties' expert witnesses in interpreting the geologic evidence, the Board found the Petitioners' expert to be less credible on this issue than those of the Division and ACD based upon background and experience. In any case a mere difference of opinion between Petitioners' expert and that of the Division on this technical matter does not support disturbing the Division's finding on this issue.

MINORITY OPINION

Board Member Payne joins in the Board's decision on all matters except issue 12. With regard to issue 12, this Board Member would remand with instructions that ACD and the Division revise the MRP to indicate explicitly how hydrologic monitoring data may be used to determine impacts to the hydrologic balance.

Regarding issue 13, as explained in a concurring opinion set forth below, this Board member affirms the Division's actions with respect to remedial measures in the hydrologic operating plan, but arrives at this decision for reasons different from the remainder of the Board.

12. Whether ACD's hydrologic monitoring plans are unlawfully incomplete because they fail to describe how the monitoring data that ACD will collect may be used to determine the impacts of the Coal Hollow mine upon the hydrologic balance.

The Board's rules require that the operations plan submitted with the permit application package set forth plans for monitoring the quality and quantity of surface and groundwater resources and that it also "describe how [the monitoring] data may be used to determine the

impacts of the operation upon the hydrologic balance." Utah Admin. Code R645-301-731.211 (a parallel requirement for surface-water monitoring may be found at R645-301-731.220 to 731.224).

Petitioners contend that the requirement that the plan contain a description of how the data may be used to determine the impacts of mining is not met in this case.

Both the Division and ACD contend that the notion that "how these data may be used" is implicit in the Mining and Reclamation Plan (MRP). Both point to portions of the MRP that might be read to implicitly describe how monitoring data may be used. However, in all these instances, the MRP merely states that data will be collected, without describing how they may be analyzed to formulate opinions about adequate protection of the hydrologic balance during operations.

This Board Member does not construe the regulations to allow the Division to merely imply how the data may be used. Despite this Board Member's comfort with the Division's approach and confidence in Division staff to meet the intent of this rule, this Board Member rejects the defense that the description of how data can be used can be implicit. Indeed, the protection of the hydrologic balance is at the very essence of SMCRA and UMCRA, and thus the Division should not take lightly the obligation to set out how monitoring data may be used to assure the Board, the Division, and the public that the Board's rules and specific permit conditions imposed by the Division are adequately protecting the hydrologic balance from undue impact from mining activities.

The Division suggests that because the Board's rules require an operator to notify the Division when there is a condition of non-compliance, this requirement is an adequate substitute for describing how the monitoring data may be used. However, neither the Board's rules nor the

MRP identify a non-compliance condition related to the diminution of groundwater or surface water resources, which is at the crux of what the applicant has described as the probable hydrologic consequences of ACD's proposed mining activities. To be clear, this Board Member certainly is not suggesting that this is an area where strict performance standards can or should be set out; rather, impacts must be assessed through consideration of a number of mining and non-mining factors, making all the more imperative that a sense of how this might be done be included in the MRP.

The Division also notes that if staff observes "trends in data" that may require further investigation, that the Division would make investigations and/or require remedial measures. While this Board Member generally does have confidence that this will occur, this notion, which is not stated anywhere in the MRP or CHIA, is inadequate to create in the public the sense of trust in the Division that is necessary for a regulator to garner. This Board Member further believes that the preparer of the applicant's MRP and Division staff that are responsible for the initial review and approval of an MRP, because of their intimate knowledge of the baseline hydrologic data and reasoning behind the PHC and CHIA, are best suited to recommend how operational hydrologic monitoring data may be used to assess impacts to the hydrologic balance. It would be best practice for such persons to create, at the very time when the issues, the data, and the understanding of the hydrologic balance are freshest in their minds, a recommendation of how hydrologic monitoring data may be used in the future.

This Board Member would not simply remand this matter without providing direction on the standard of descriptiveness of "how these data may be used". Petitioners cite *SOCM* for the proposition that descriptions of how data may be used that are "so vague and general that they cannot form the basis for reasonable evaluation" are "inadequate". This negative standard does

not seem unreasonable to this Board Member, but is in itself vague.

This Board Member does not read the Board's rules to require that an MRP contain a "step-by-step description which the general public can use to determine the impacts of the operation on the hydrologic balance," and concurs with ACD that "a citizen's 'recipe' for 'how to' use quantity and quality data…exceeds what is specifically required by R645-301-731.211 or 731.220-224." Respondent Alton Coal Development, LLC's Closing Brief on Hydrology and Geology Claims at 15. Indeed, an MRP need only state what methods may be used without the detailed technical descriptions of how those methods are employed, as long as such are generally accepted methods that can readily be employed and interpreted by a reasonable hydrologist or hydrogeologist. An MRP or a permit approval is not a venue for educating the public about the science of hydrology or hydrogeology—an interested citizen must possess or be willing to acquire an understanding of the fundamentals of these disciplines, with a reasonable degree of coaching from Division experts.

ACD, for instance, points to a number of methods that have been used to analyze baseline conditions, and the MRP may implicitly intend for these types of methods to be utilized for operational monitoring data. A relatively simple explanation of how these methods could be applied to operational hydrologic monitoring data would seem to be sufficient to meet the intent of the rule and the reasoning of *SOCM*.

13. Whether ACD's hydrologic operating plan is unlawfully incomplete because it fails to include remedial measures that ACD proposes to take if monitoring data show trends toward one or more material damage criteria.

This Board Member affirms the Division's actions with respect to remedial measures within the hydrologic operating plan, but does so on slightly different grounds than the

remainder of the Board.

This Board Member does not view the hydrologic operating plan as explicitly describing any truly *remedial* measures for TDS. The plan instead focuses on a number of *preventative* measures that are designed to avoid impacts to water quality parameters, including TDS.

A strict reading of the Board's rule that the operation plan "will include preventative and remedial measures," could suggest a non-discretionary obligation to identify remedial measures under any circumstances. However, it would be an imprudent use of applicant and Division resources to require investigation and development of remedial strategies for potential hydrologic consequences that have a sufficiently low probability of occurrence--either due to site conditions or the robustness of preventative measures. Therefore, common sense and a reading of the regulations in light of their overall goals demands that the Division be granted a measure of discretion in determining if an applicant must include remedial measures in the operations plan and the level of detail of such measures.

The determination of probable hydrologic consequences in the MRP (MRP at 7-36) discusses potential water quality impacts of the mine operation as measured through increase in TDS but indicates that the operating conditions that would cause elevated TDS will be avoided or minimized. Petitioners offered no evidence at hearing contending that the control measures put forward by ACD and found adequate by the Division were deficient.

This Board Member finds that the Division exercised proper and judicious use of discretion in not requiring ACD to investigate, develop, and describe in the operation plan remedial measures for elevated TDS.

Overall Decision

Consistent with the foregoing, the Board affirms the actions of the Division in this matter and grants the permit at issue.

Pursuant to R641-109-100, the Board asks counsel for the Division, ACD and Kane County to prepare proposed Findings of Fact, Conclusions of Law and an Order memorializing the decisions announced above. Objections to the proposed order may be submitted and will be considered prior to final Board action as provided in the regulations.

Due to the complexity of coal permit appeal matters, the Board has on past occasions in such cases made a specific finding that the time limits set forth in R649-109-100 and R649-109-200 are unrealistic and has found good cause to enlarge those time limits. The Board makes the same finding in this case and directs counsel for the Division, ACD and Kane County to prepare proposed Findings of Fact, Conclusions of Law and an Order on or before August 31, 2010. Petitioners shall have until fourteen (14) calendar days following the submission and service of the proposed order to file objections to its form. The parties may seek an enlargement of the timeframes specified herein should they find them to be insufficient or unrealistic. As it has on past occasions, the Board will consider the hearing to be ongoing in this matter until a final order has been signed by the Board.

The rulings announced herein are interim and not final, and the time for seeking administrative reconsideration pursuant to Utah Code Ann. §63G-4-302 or judicial review pursuant to Utah Code Ann. §63G-4-401 shall not begin to run until the Board issues its final Findings of Fact, Conclusions of Law and Order.

The Chairman's signature on a facsimile copy of this Interim Order shall be deemed the equivalent of a signed original for all purposes.

Issued this 2nd day of August, 2010

UTAH BOARD OF OIL, GAS & MINING

Douglas E. Johnson, Chairman

CERTIFICATE OF MAILING

I hereby certify that I caused a true and correct copy of the foregoing Interim Order to be mailed by first class mail, postage prepaid, the 3rd day of August, 2010 to:

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